

"Dedicated to Public Service"

THE RADIATOR



W6RHC
IRLP #8170
Echolink #322788



<http://www.gearsw6rhc.org>

P.O.Box 508 Chico, CA 95927-0508

Founded: August 13 1939

May 2010

Coming Events

O.A.R.S. GENERAL MEETING

Friday, May 14, 2010, at 7:00 p.m., at St. Paul's Church Parrish Hall, 1430 Pine St., Oroville

G.A.R.S. GENERAL MEETING; 7:00 p.m.
Wednesday May 12, at the Lutheran Church Hall, Artois

G.E.A.R.S GENERAL MEETING

Friday, May 21, 2010, at 6:30 p.m. at Butte County Search & Rescue Building-2591 Morrow Lane, Chico

A.R.E.S. MEET: Friday May 28, at 6:30 p.m. Butte County Search & Rescue Bldg.

FCC EXAMS - GEARS VEC

Sunday June 6, 2010

At the Butte County Search and Rescue Building.
Written test at 2:00 p.m. For information or pre-registration call Gene WA6ZRT, (530) 345-3515.

Club Events:

News and items of interest
GEARS Calendar...all inside.

Remember to check out
Our excellent Website: gearsw6rhc.org



Picture courtesy EVARC

THIS IS IT, THIS MONTH, AT OUR MAY AUCTION—LAST CHANCE TO PURCHASE YOUR WINNING TICKET FOR: This YAESU FT-2900R/E



To be raffled at GEARS May, 2010 annual auction.

Tickets are: \$5.00 each, or 5 for \$20.00

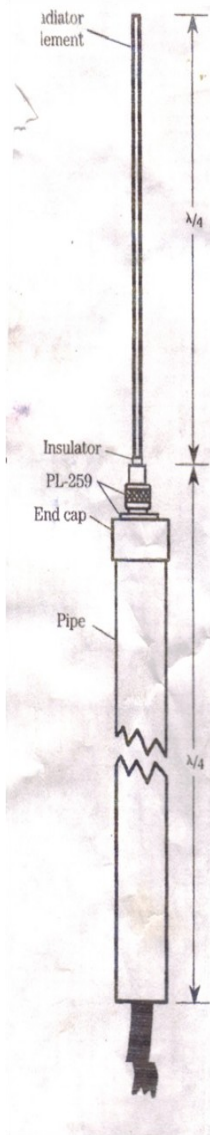
Contact Evelyn Weir k6qxc—530-345-8257

Or at evelynk6qxc@digitalpath.net

**There will also be two consolation drawings
One for a Magmount antenna and one to be for**

50 feet of RGU8 cable with PL259 connectors.

- **COAXIAL VERTICAL**
- **(SEWER PIPE) ANTENNA**



The tube is a piece of copper or (chromed) brass tubing about one inch in diameter. An end cap is fitted over the end, and sweat soldered into place. The solder is not intended to add mechanical strength, but rather to prevent weathering from destroying the electrical content. (In lieu of soldering three (3) equally spaced sheet metal screws will be equally effective and will facilitate easy disassembly). An SO-239 coaxial connector is mounted to the end cap. The coax is connected to the SO-239 inside of the pipe...which means making the connection before mounting the end cap.

The radiator element is a small piece of tubing (or brazing rod) soldered to the center conductor of a PL-259 coaxial connector. An insulator is used to prevent the rod from shorting to the outer shell of the PL-259 (note: an insulator salvaged from the smaller variety of banana plug can be shaved a small amount with a fine file and made to fit inside the PL-259. It allows enough center clearance for 1/8 or 3/16 inch brass tubing.)

inside the PL-259. It allows enough center clearance for 1/8 or 3/16 inch brass tubing.)

- This was a popular antenna during the early 60's when automobile manufacturers converted from six volt starter systems to twelve volt. Six volt Taxi and Police radios were readily available (cheap) and this antenna came into wide use at that time by amateur operators. It was made initially from chrome plated brass tubing used in plumbing, hence the name.

VIDEO OF HO-68 OPERATIONAL MODES

Henk PA3GUO has produced a video showing all the modes available on the Amateur Radio satellite Xi Wang 1 (HO-68). This 2 minute video features the launch of the satellite and shows its various modes of operation -Beacon, FM, AX.25 Packet and SSB/CW linear transponder. Call signs heard during the video include M3PQQ, N1AIA, KC9ELU, VA3FM, WA3CZY and I6IBE. You can find the video at <http://tinyurl.com/ycjp4dg>

NZ3M has put a video of SSB contacts via the new Amateur Radio satellite HO-68. This video can be viewed at <http://tinyurl.com/ya2uyzs>

SOFTWARE DEFINED RADIO (SDR) EXPLAINED

"Fists of Fourier Explained" is an interesting 3 part series explaining the fundamentals of Software Defined Radio. It is available at website: <http://garage-shoppe.com/wordpress/?p=278#more-278>

**Some mistakes are too much fun to only make once.*

Many Radio Clubs Could Lose Tax-Exempt Status in 2010

Changes made three years ago to the federal tax laws could cause many radio clubs to lose their tax-exempt status this year. Clubs that are tax-exempt under [Section 501\(c\)](#) of the [Internal Revenue Code](#) must file the required IRS annual returns or reports *before* the deadline, which is May 15 for those with calendar years.

“Many clubs have, at some time in the past, applied for tax-exempt status as charitable organizations under [Section 501\(c\)\(3\)](#), as civic leagues under [Section 501\(c\)\(4\)](#) or...

Changes made three years ago to the federal tax laws could cause many radio clubs to lose their tax-exempt status this year. Clubs that are tax-exempt under [Section 501\(c\)](#) of the [Internal Revenue Code](#) must file the required IRS annual returns or reports *before* the deadline, which is May 15 for those with calendar years.

“Many clubs have, at some time in the past, applied for tax-exempt status as charitable organizations under [Section 501\(c\)\(3\)](#), as civic leagues under [Section 501\(c\)\(4\)](#) or as recreational clubs using [Section 501\(c\)\(7\)](#),” said ARRL Southwestern Division Director Marty Woll, N6VI. “Years ago, any club with gross receipts averaging less than \$25,000 per year was not required to file annual returns with the IRS; however, after 2006, such clubs had to file a [Form 990-N](#), a simple ‘electronic postcard’ with minimal information, by the 15th day of the fifth month after the close of each fiscal year. Some clubs may not have been aware of

this new requirement or didn’t bother to comply. Even those that filed in a prior year may have neglected to keep up with the required filings as officers changed from year to year.”

[Section 6033\(j\)](#) of the Code provides that failure to file [Form 990](#), [990-EZ](#) or 990-N for three consecutive years results in revocation of tax-exempt status as of the filing due date for the third return. That filing date for calendar year 2009 is less than two weeks away. “If you are a club officer and are uncertain who is responsible for IRS filings, or whether such filings are current, you should determine your filing status as soon as possible and take immediate steps to file the current and any missed prior-year IRS forms,” Woll explained. “Going forward, your club’s board should assign the responsibility for compliance filings with a designated officer and document that responsibility in the written ‘job description’ for the position so that subsequent holders of the office are made aware of the requirements. If you have questions about your club’s status, you may wish to consult a CPA or other tax advisor.”

Source: ARRL Newsletter May, 2010

**The second mouse gets the cheese*

• W1AW Offers Code Practice, Bulletins via EchoLink

• Audio from W1AW's CW code practices and CW/digital bulletins is now available using EchoLink via the W1AW Conference Server "W1AWBDCT." The 9:45 PM ET phone bulletin is currently unavailable via W1AWBDCT. The audio is sent in real-time and runs concurrently with [W1AW's regular transmission schedule](#). According to W1AW Station Manager Joe Carcia, NJ1Q, this server is currently at an experimental stage: "Since the server is located at ARRL -- and uses the ARRL's Internet connection -- there may...be an issue as to how many users can connect to W1AWBDCT via EchoLink. The current number of connections is set to 350. If the current system can properly handle these connections without adversely affecting the performance of the conference server, this number will be bumped up higher." All users who connect to the conference server are muted. Please note that any questions or comments should not be sent via the "Text" window in EchoLink. Please send any questions or comments to w1aw@arrl.org.

SOURCE:ARRL Newsletter May 2010

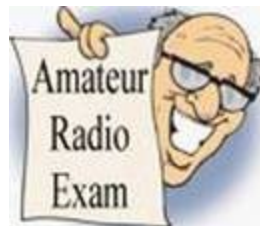
- Accept that some days you're the pigeon and some days you're the statue.*

GUIDE ON LIGHTNING PROTECTION AVAILABLE FOR DOWNLOADING

The Institute of Electrical and Electronics Engineers (IEEE) has released a new lightning protection guide: How To Protect Your House and Its Contents From Lightning: IEEE Guide for Surge Protection of Equipment Connected to AC Power and Communication Circuits By: Richard L. Cohen, Doug Dorr, James Funke, Chuck Jensen, and S. Frank Waterer. This is a 52 page illustrated guide written by the IEEE Surge Protection Device Committee.

It covers lighting hazards, integration of the various components of a lightning protection system, AC and signal surge protectors, multi-port protectors for equipment connected to signal and power lines, and grounding methods. It is written in plain technical language, and is an excellent guide for all amateurs concerned about protecting their antennas, shack and homes from the effects of lightning.

The guide is available at no cost from the following URL: www.lightningsafety.com/nlsi_lhm/IEEE_Guide.pdf - BRATS



VEC TESTING

June 6th, 2010

AT BUTTE COUNTY SEARCH & RESCUE BUILDING

**All Classes
Technician, General and
Extra.**



Caps embroidered with your name and your call sign may be ordered by contacting WA6ZRT -Gene Telephone #530 -345-3515

**Contact: WA6ZRT-
Gene Wright
530-345-3515**

ARRL INTRODUCES UNDERSTANDING BASIC ELECTRONICS, SECOND EDITION

Your gateway into the exciting world of electricity and electronics -- is written in a friendly, easy-to-understand style that beginners and nontechnical readers will enjoy. This introductory guide is ideal for students with basic math skills, as well as radio amateurs and experimenters interested in gaining a more complete understanding of basic electronic principles -- anyone eager to unlock the mysteries of electronic circuits.

Authored by Walter Banzhaf, WB1ANE, this new edition features student-friendly math made easy -- an inexpensive calculator is all you need -- and now includes digital electronics. Even if you already have a foundation in basic electronics, you will enjoy the small module format of each chapter, allowing readers to digest "bite-sized" chunks of learning material. Realworld examples and clear illustrations make the study of electronics interesting and fun! A handful of small "kitchen table" projects are included to help bring abstract concepts to life.

Understanding Basic Electronics, second edition includes chapters on electronics, analog and digital electronic circuits, electrical terms, conductors, insulators and resistors, electricity and magnetism, capacitors and inductors, electrical circuits (both series and parallel), Ohm's law, techniques and tricks on how to solve circuit problems, energy and power, alternating current (ac), capacitors and inductors, transformers, impedance, resonant active device concepts, semiconductors, diodes, transistors and ICs -- and much more.

For a limited time, [ARRL members can purchase *Understanding Basic Electronics, second edition* for only \\$29.95](#) -- that's \$3 off the regular price of \$32.95

Sending and Relaying Messages...The Basics

Part One

Efficient traffic handling means getting the message relayed with 100% accuracy in the least practical amount of time. 100% accuracy is especially important if you do not understand the content of the message. If it makes no sense to you, it MAY be appropriate to get an explanation before you put it on the air. This is a judgment call. If you are handling medical traffic, it is helpful but not necessary to understand what you are communicating. But if you are communicating information you do not understand, accuracy is all the more critical.

Send the message ONCE (right the first time) There are many elements of technique that contribute to getting it "right the first time". The most important is, you SEND a message, you DON'T READ it. When you are sending the message the person receiving it must write it down. Most people can't write as fast as we talk. Therefore, you must slow your delivery to allow the receiving station to comfortably (and legibly) write the message down. If you are too fast, and have to repeat many times, the end result is that it takes longer. It is better to slow your delivery so that the receiving station gets it the first time than to repeat all or part of the message. You might try composing a message and sending it to a tape recorder. Then play the tape back and see if you are comfortable writing it down at that speed. You will probably be surprised. When sending a message, speak slowly, distinctly, clearly and to do let your voice trail off at the end of words or sentences. Give each and every word equal force. Follow standard procedures as much as possible, and try to do things consistently. That way people receiving traffic from you will be used to your delivery and it won't be a guessing game about what you are going to do next.

To be continued in our June issue.

(this article from Ray Watkins-November 2003 Newsletter)

**Glenn Amateur Radio Society
G.A.R.S.**

The evolution of a new amateur radio club involves many aspects: Among them the following:

New Club Call Sign: KJ6HCG

Registered domain name: garshamradio2010.org

(this is the name which will identify the club website once the website is developed.)

E-mail address: hamradio2010@usa.com.

Mailing address is:

**Glenn Amateur Radio Society
(G.A.R.S.)
PO Box 212
Willows, Ca 95988**

The GARS Club will meet every second Wednestay at 7:p.m, with the Board meeting at 6:15 p.m. The meetings to be held at the Artois Lutheran Church Hall.

**Always keep your words soft and sweet, just in case you have to eat them.*

**ARES SCHEDULED
TRAINING PROGRAMS
Amateur Radio Emergency Services**

ARES meetings are the fourth Friday of each month. . Programs planned at present are:

May 28: Message handling

July 23: Crossband repeating/portable repeaters

Please offer suggestions for future study programs during the Monday night net.

You do not have to be a member of GEARS to participate in ARES. All interested parties are encouraged to attend ARES meetings. *****

TECH CLASSES COMMENCE MAY 6, AT VETERANS HALL BUILDING, WILLOWS.

The classes will be each Thursday, 7:00 p.m. The ARRL test will be given at the final meeting on July 8.

Contact John Hursey-n8gnv@sbcglobal.net.

Friday May 14	7:00 p.m.	Oroville Amateur Radio Society OARS General Meeting	St Paul's Church Parrish Hall 1430 Pine St., Oro- ville, CA	John Hunt K7XE@arrl.net 530- 589-4734
Wednesday May 12	7:00 p.m.	Glenn Amateur Radio Society (GARS) General Meeting	Lutheran Church Hall 565 Main St., Artois, CA	John Hursey N8GNV 530-329-6713 n8gnv@sbcglobal.net
Friday May 21	6:30 PM.	GEARS General Meeting	Butte Co. Search and Res- cue Bldg 2591 Morrow Lane, Chico	Randall Stone K6RCS 530-521-1318
Friday May 28	7:00 p.m	ARES	Butte Co. Search and Res- cue Bldg 2591 Morrow Lane, Chico	Steve Kaps N6NPN (530) 591-0450
June 6 th, Sunday	2:00 p.m.	VEC Test	Butte County Search and Rescue Building, 2591 Morrow Lane, Chico	Gene Wright WA6ZRT 530 345-3515

**Since it's the early worm that gets eaten by the bird, sleep late.*

The GEARS Newsletter Staff:

Editor and Publisher.....Dorothy Post
Printing & DistributionSuzanne Jessen KG6IZM
Website.....Stephen McDermott W6AKF

The Radiator is a monthly publication of the Golden Empire Amateur Radio Society (GEARS). It is the policy of the Editor to publish all material submitted by the membership provided such material is in good taste, relevant to amateur radio, of interest to GEARS members, and space is available. Please send all submissions to the Editor – Dorothy Post by the last day of the month through the following medium: E-mail: dj@posthouse.us

Club Officers: (Board of Directors)

PresidentRandall Stone K6RCS
Vice President.....James Hilton KI6NKZ
SecretaryKrista Gallwitz K6KEG
Treasurer.....Lester Mikeworth KG6KUO
Past PresidentRay Watkins KO6TW
Director.....Gene Wright WA6ZRT
Director.....Stephen McDermott W6AKF
Director.....Evelyn Weir K6QXC

Club Meetings

General Meeting Third Friday 6:30 PM
Board Meeting Third Friday 9:00 PM

Club Net

Tuesdays 8:00 PM 146.850 MHz

Sacramento Valley Traffic Net

Nightly 9:00 PM 146.850 MHz

ARES Net

Butte Glenn Mondays 8:00 PM 146.850 MHz
 Yuba Sutter Thursdays 7:00 PM 146.085 MHz
 Meetings Fourth Friday 7:00 PM

Other Nets

Sac Valley
 Section Net
 7:00 PM 2nd Wed of
 the month
 146.085 MHz
 440 Wed. Night 8:00 PM Wednesday 440.650 MHz
 520 *Simplex* 8:00 PM Thursdays 146.520 MHz
 Golden Bear 7:00 PM Daily 3975 kHz
 Willie Net 8:00 PM Mondays 1930 kHz
Western Public Service System (WPSS)
 Winter
 Summer
 5:00 – 7:30 PM
 6:00 – 8:30 PM
 3952 kHz
 3952 kHz

ARISS (International Space Station)

Uplink 144.490 MHz Downlink 145.800 MHz
 Hope-1 satellite: all uplinks are in 145Mhz band:
 All downlinks are in 435Mhz band

FUTURE EVENTS**WILLOWS HIGH SCHOOL BOOSTER CLUB—107 MILE BICYCLE RIDE.**

May 15th: 6:00 a.m. This is a first time event.

Volunteers sought from both GEARS and GARS groups. Participants leave Memorial Park downtown Willows, bike to Forest Road 7 (Alder Springs area) and then back. A bar-b-que for all, at the park concludes the event.

| [ARRL EXPO at the Dayton Hamvention®](#)

On May 14-16, hams from all over the world will make their way to the Hara Arena, located in Trotwood, Ohio for the 2010 Dayton Hamvention®. Held annually since 1952, Hamvention is one of the largest Amateur Radio gatherings in the world.

2010 ARRL FIELD DAY

It is time to start gearing up for ARRL Field Day, **June 26-27, 2010!** ARRL's flagship operating event -- always held the fourth full weekend in June, brings together new and experienced hams for 24 hours of operating fun.